

What is claimed is:

1. A compiler for generating object code from an input source program, comprising:

a character string interpreter which divides instructions coded within an input source program into tokens;

5 a syntax analyzer which analyzes syntax of said tokens, and makes a judgment as to whether or not a definition of an intrinsics function and an instruction attribute information characterizing an instruction coded in intrinsics functions is included in a combination of said tokens;

10 an intrinsics function information database into which a definition of said intrinsics function and said instruction attribute information are stored as intrinsics function information; and

15 a code generator which develops an instruction that calls an intrinsics function within said source program by referring to said intrinsics function information, and which converts said developed source program either to machine language or to an intermediate code.

2. The compiler according to claim 1, wherein said syntax analyzer distinguishes a prescribed identifier that indicates an intrinsics function from among a

20 function declaration part of said source program to judge as to whether or not said intrinsics function definition and said instruction attribute information is defined.

3. The compiler according to claim 1, wherein said intrinsics function definition includes a dummy argument type and identification name.

4. A compiler for generating object code from an input source code program,

comprising:

a character string interpreter which divides instructions coded within an input source program into tokens;

a syntax analyzer, which analyzes syntax of said tokens;

5 an intrinsics function information database into which a definition of an intrinsics function and instruction attribute information characterizing an instruction coded by the intrinsics function are stored as intrinsics function information; and

10 a code generator which develops an instruction that calls an intrinsics function within said source program by referring to said intrinsics function information, and

15 which converts said developed program either to machine language or to an intermediate code.

5. The compiler according to claim 4, wherein said syntax analyzer distinguishes a prescribed identifier indicating an intrinsics function from among a function

15 declaration part coded within an external file, thereby making a judgment as to whether or not an intrinsics function definition and said instruction attribute information are defined.

6. The compiler according to claim 4, wherein said intrinsics function definition
20 includes a dummy argument type and identification name.

7. A compiler for generating object code from an input source program,
comprising:

a character string interpreter which divides instructions coded within an input
25 source program into tokens;

a syntax analyzer which analyzes syntax of said tokens;

an intrinsics function information database into which a definition of an

intrinsics function and instruction attribute information characterizing an instruction coded by the intrinsics function are stored as intrinsics function information; and
a code generator which develops an instruction that calls an intrinsics function within said source program by referring to said intrinsics function information, and
5 which converts said expanded source program either to machine language or to intermediate code,

wherein said intrinsics function information includes a function declaration statement, to which is added a prescribed identifier indicating an intrinsics function, dummy argument information, and said instruction attribute information.

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8. A method for compiling which generates object code from an input source program, comprising:
- storing a definition of an intrinsics function into an intrinsics function information database;
- 15 storing instruction attribute information characterizing an instruction coded by an intrinsics function into said intrinsics function information database;
- dividing instructions coded within an input source program into tokens;
- analyzing the tokens and detecting from a combination of said tokens a declaration of a start of coding with regard to said intrinsics function; and
- 20 developing an instruction that calls an intrinsics function within said source program by referring to said intrinsics function information database, and converting said developed source program either to machine language or to intermediate code.

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9. A method for compiling, which generates object code from an input source program, comprising:
- dividing instructions coded within an input source program into tokens;
- analyzing said tokens and detecting from a combination of said tokens a

declaration of a start of coding with regard to said intrinsics function;
accessing an intrinsics function information database, into which are stored a definition of an intrinsics function and instruction attribute information characterizing an instruction coded by said intrinsics function;
5 developing an instruction that calls an intrinsics function within said source program; and
converting said developed source program either to machine language or to intermediate code.

10 10. The method for compiling according to claim 8, wherein said detecting of said declaration is performed by distinguishing a prescribed identifier indicating an intrinsics function from among a function declaration part of said source program, thereby making a judgment as to whether or not said intrinsics function definition and said instruction attribute information are defined.

15 11. The method for compiling according to claim 9, wherein said detecting of said declaration is performed by distinguishing a prescribed identifier indicating an intrinsics function from among a function declaration part of said source program, thereby making a judgment as to whether or not said intrinsics function definition and
20 said instruction attribute information are defined.

12. A computer-readable recording medium onto which is stored a program causing a computer to execute compiling processing that generates object code from an input source program, said program comprising:
25 processing for character string interpretation, so as to divide instructions coded within an input source program into tokens;
processing for analyzing said tokens and for analyzing a syntax thereof to

judge whether or not a combination of said tokens has a definition of an intrinsics function and instruction attribute information characterizing an instruction coded by said intrinsics function;

- processing for storing a definition of said intrinsics function and said
5 instruction attribute information as intrinsics function information;
processing for developing an instruction that calls said intrinsics function
within said source program by referring to said intrinsics function information; and
generating code that converts said expanded source program either to machine
language or to intermediate code.

- 10 13. The recording medium according to claim 12, wherein said syntax analysis
processing distinguishes a prescribed identifier indicating an intrinsics
function from among a function declaration part of said source program,
thereby making a judgment as to whether or not said intrinsics function
definition and said instruction attribute information are defined.
- 15 14. A computer-readable recording medium onto which is stored a program
causing a computer to execute compiling processing that generates object code from an
input source program, the program comprising:
20 processing for character string interpretation, so as to divide instructions
coded within an input source program into tokens;
processing for analyzing syntax, so as to analyze the tokens;
processing for storing a definition of an intrinsics function and instruction
attribute information characterizing an instruction coded by said intrinsics function as
25 intrinsics function information;
processing for developing an instruction that calls an intrinsics function within
said source program by referring to said intrinsics function information; and

generating code that converts said developed source program either to machine language or to intermediate code.

15. The recording medium according to claim 14, wherein said syntax analysis
5 processing distinguishes a prescribed identifier indicating an intrinsics function from among a function declaration part of said source program, thereby making a judgment as to whether or not said intrinsics function definition and said instruction attribute information are defined.
- 10 16. A computer-readable recording medium onto which is stored a program causing a computer to execute compiling processing that generates object code from an input source program, said program comprising:
processing for character string interpretation, so as to divide instructions coded within an input program into tokens;
15 processing for analyzing syntax, so as to analyze said tokens;
processing for storing a definition of an intrinsics function and instruction attribute information characterizing an instruction coded by said intrinsics function as intrinsics function information; and
processing for accessing said intrinsics function information;
20 processing for developing an instruction that calls an intrinsics function within said source program by referring to said intrinsics function information; and
processing for generating code that converts the thus developed source program either to machine language or to intermediate code,
wherein said intrinsics function information comprises a function declaration
25 statement to which is added a prescribed identifier indicating an intrinsics function, dummy argument information, and said instruction attribute information.

17. A program for causing a computer to execute compiling processing that generates object code from an input source program, said program comprising:
 - processing for character string interpretation so as to divide instructions coded within an input source program into tokens;
 - 5 processing for analyzing said tokens, and performing syntax analysis so as to judge whether or not a combination of the tokens has an intrinsics function definition and a definition of instruction attribute information characterizing an instruction coded by said intrinsics function;
 - 10 processing for storing said intrinsics function definition and intrinsics function information as intrinsics function information;
 - 15 processing for developing an instruction that calls an intrinsics function within said source program by referring to said intrinsics function information; and processing for generating code that converts said developed source program either to machine language or to intermediate code.
18. The program according to claim 17, wherein said syntax analysis processing distinguishes a prescribed identifier that indicates an intrinsics function from among a function declaration part of said source program, thereby making a judgment as to whether or not said intrinsics function definition and said instruction attribute information are defined.
19. A program for causing a computer to execute compiling processing that generates object code from an input source program, said program comprising:
 - processing for character string interpretation so as to divide instructions coded within an input source program into tokens;
 - 25 processing for analyzing the syntax of said tokens;
 - processing for storing an intrinsics function definition and attribute

information characterizing an instruction coded by said intrinsics function as intrinsics function information;

processing for accessing said intrinsics function information;

5 processing for developing an instruction that calls an intrinsics function within said source program by referring to said intrinsics function information; and

processing for generating code that converts said developed source program either to machine language or to intermediate code.

20. A program for causing a computer to execute compiling processing that

10 generates object code from an input source program, said program comprising:

processing for character string interpretation so as to divide instructions coded within a source program into tokens;

processing for analyzing the syntax of said tokens;

processing for storing an intrinsics function definition and attribute

15 information characterizing an instruction coded by said intrinsics function as intrinsics function information;

processing for accessing said intrinsics function information;

processing for developing an instruction that calls an intrinsics function within said source program by referring to said intrinsics function information; and

20 processing for generating code that converts said developed source program either to machine language or to intermediate code,

wherein said intrinsics function information is made up of a function declaration statement to which is added a prescribed identifier indicating an intrinsics function, dummy argument information, and said instruction attribute information.